

shp Oct. 19th

\*74824\*

Work Order ID 74824  
October-07-11 9:42:52 AM


Item ID: D350-636-018  
Revision ID:  
Item Name: Skidtube w/ Training Wearplates, RH  
Start Date: 10/06/11 Start Qty: 1.00  
Required Date: 10/19/11 Req'd Qty: 1.00  
Reference:

Accept

\*N900040100\*

Setup Start \*NS1\*  
Stop \*NS2\*

Cust Item ID:  
Customer:

Approvals: Process Plan:   
QC

Date:  
Date:

Tooling:  
SPC (Y/N):

Date:  
Date:

Run Start \*NR1\*  
Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description
Draw Nbr	Revision Nbr
D3492	C
IIN-D350-636	I

Set Up/  
Run Hours

Tool ID Tool # Plan Accept Reject Reject Insp.  
Code Qty Qty Number Stamp

100


0.00

\*100\*  
DC

DOCUMENT CONTROL

Document Control

Memo  
Photocopy blue file and type labels per PPP D350-636-018 CHG 002

N/A 



# Work Order ID 74824

**\*74824\***

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Accept

**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

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Cust Item ID:

Required Date: 10/19/11 Req'd Qty: 1.00 **\*1\***

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start **\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

110

0.00

**\*110\***

Skidtubes

0.00

Skidtubes

Skidtubes

Memo

1- Pick D2600-3 Bent

2- Deburr FWD and AFT ends, remove bending marks. Scribe batch# inside AFT end ~~part# D2750~~

3- Drill pilot holes for blade fitting bolt holes using DT8983. Open to 0.500", deburr. **DT8329**

4- Locate ~~DT8330~~ off of blade fitting bolt holes and drill pilot holes for blade fitting **Detail AA**

5- Drill fwd step holes using DT9616. Ensure proper positioning.

6- Drill pilot holes as per Dwg D2750 sheet 4 (D2750-1 details). Drill using drill Jig DT8150 & DT8863A for first side only DT8863B for second side (detail B) **3464A**

7- Clecko DT8863B on second side of tube and drill pilot holes for detail B. **3464B**  
\*\*\*SECOND SIDE\*\*\*

8- Open up holes for Detail B to 0.375" (4 holes per side) and blade fitting location holes to 0.500" (total of 4 holes per side) as per dwg D2750. Open up holes for ground handling and detail C to 0.500" (8 holes per side)

9- Drill pilot holes for wearplates as per Dwg D2750 using DT8983, open to ~~0.297"~~ **4168** **9608**  
**Locating From 66.54 hole.**

10- Open up holes of Detail A to 0.297" (total of 2 holes per side)

**-201 Detail AA**

**B 11/10/12**

**N/A 11-10-12**

**B 11/10/12**

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Tooling:

Date:

Run Start **\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

11-Weld D2744 Cap as per Dwg D2750 and QSI 004. Fill grooves in bend left  
from bending as per QSI 004  
A/R Aluminum Rod batch: *4168* *m118736* *BE 11/10/12*

12-Grind welds flush as per Dwg D2750  
*4168*

120

**\*120\***

QC

Quality Control

QC10- Inspect visual per QSI004- ground welds

0.00

Memo

0.00

130

**\*130\***

QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

*(+L)*

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Required Date: 10/19/11 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start **\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run HoursTool ID Tool # Plan Accept Reject Reject Insp.  
Code Qty Qty Number Stamp

140

Chemical Conversion Coat per QSI005 4.1

0.00

**\*140\***

HandFinish

Memo

0.00

Hand Finishing

150

QC3- Inspect Part Finish

0.00

**\*150\***

QC

Memo

0.00

Quality Control

BB 11/10/12

DP 11-10-12

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Customer:

Reference:

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run Start <b>*NR1*</b>
	QC:	Date:	SPC (Y/N):	Date:	Stop <b>*NR2*</b>

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

160

0.00

**\*160\***

Skidtubes

0.00

Skidtubes

Skidtubes

## Memo

1-Open up holes of Detail <sup>AB</sup> and ground handling to 0.625" (total of 8 holes per side)

as per dwg D2750

2-Open up holes of Detail B to 0.750" (total of 4 holes per side)

as per dwg D2750

3- Open float hole to 0.500" (4 per side)

4-Chamfer holes of Detail B, C, ground handling and float holes per dwg D2750 (welding instructions on sheet <sup>4168</sup> ~~011~~)

5-Deburr and blow out all chips from inside of tube

6- Prepare tube for welding, remove alodine as required.

7-Bond web D2739 in place as per QSI 015

A/R Sikaflex-291

batch: <sup>4168</sup> M118393

exp. date: 12/4-5

8- Weld spacers ~~D3490-1, D3490-3 and D2743~~ as per dwg D2750 & QSI004

(welding instructions on sheet <sup>4168</sup> ~~81~~)

A/R Aluminum Rod

batch: M118736

9- At section A-J drill out x-bolt spacer to 0.404"

10-Grind welds flush as per Dwg D2750

DP 11-10-12

BE 11/10/13

BB 11/10/13

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Stop **\*NS2\***

Start Date: 10/06/11 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 10/19/11 Req'd Qty: 1.00

**\*1\***

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Date:

Run Start **\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

*M*

11-Spot face ground handling holes section (total of 4 places per side) as per  
dwg D2750 4168

12- C'bore section CK-CK

13- Deburr holes

*11/10/13*

170

QC10- Inspect visual per QSI004- ground welds

0.00

**\*170\***

QC

Memo

0.00

Quality Control

*8/11/14*

180

QC5- Inspect part completeness to step on W/O

0.00

**\*180\***

QC

Memo

0.00

Quality Control

*8/11/14*

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Tooling:

Date:

Run Start **\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

190

Pressure Wash per QSI005 4.3

0.00

**\*190\***

HandFinish

Memo

0.00

Hand Finishing

✓ Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch.

200

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

**\*200\***

Powdercoat

Powder Coating

Memo

0.00

START TIME: 11:20

OVEN TEMPERATURE: 320 °F

FINISH TIME: 11:50

210

QC3- Inspect Part Finish

0.00

**\*210\***

QC

Memo

0.00

Quality Control

Inspect for foreign object per QSI 024

1XØ m / 11/10/24

1 BR 11-10-25.



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Reference:

Approvals: Process Plan: Date: Tooling: Date:

Run Start **\*NR1\***

QC: Date: SPC (Y/N): Date:

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
220	HandFinishing	0.00							
<b>*220*</b>									
HandFinish	Memo	0.00							
Hand Finishing	1- Install inserts as per Dwg D2750								
230	HandFinishing	0.00							
<b>*230*</b>									
HandFinish	Memo	0.00							
Hand Finishing	1-Inspect for Foreign Objects								
	2-Spray inside of tube with "LPS-3" batch: <u>N/A</u>								
	3-Install blade fitting D3488-041, wearshoes and ground handling hardware as per dwg D2750								
	SIKA FLEX 241								
	BATCH: <u>11839B</u>								
	EXP DATE: <u>12-5</u>								
	4-assemble o'ring to plug as per dwg D3482 and apply o'ring lube								
	A/R 55-o'ring lube batch: <u>110348</u>								
	5-Coat all exposed fasteners with "LPS Procyon" batch: <u>114596</u>								

1 BR 11-10-25

1 BR 11-10-25

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Reference:

Approvals: Process Plan: Date:

Tooling: Date:

Run Start **\*NR1\***

QC: Date:

SPC (Y/N): Date:

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
240	QC5- Inspect part completeness to step on W/O	0.00							
<b>*240*</b>									
QC	Memo	0.00							
Quality Control									
250	Pick Kit	0.00							
<b>*250*</b>									
Packaging	Memo	0.00							
Packaging									
260	QC4- 100% Inspect kits for completeness	0.00							
<b>*260*</b>									
QC	Memo	0.00							
Quality Control	*****ensure antiseize is on AN8C21A bolts*****								

8/11/10/26

Ⓢ

11/10/27 SP

8/11/10/27

Ⓢ

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Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start **\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

270

0.00

**\*270\***

Packaging

Packaging

Memo

0.00

Identify and pack for shipping as per PPPD350-636-018

Location: \_\_\_\_\_

PPP rev: \_\_\_\_\_

PP 75122

PP 11/10/27

280

0.00

**\*280\***

QC

QC21- Final Inspection - Work Order Release

Memo

0.00

Quality Control

11/10/28

11-10-27

# Picklist Print

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Work Order ID: 74824

Parent Item: D350-636-018

Parent Item Name: Skidtube w/ Training Wearplates, RH

Start Date: 10/06/11

Required Date: 10/19/11

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP rev:A 10.09.28 new issue DD verf:EC  
DD verf:EC

IPP Rev:B 11.04.14 ecn11-553

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3490-1 Cross Bolt Spacer		Manufactured	No			160	Each	66.0000	4	4		BE 11/10/13	

Location	Loc Qty	Loc Code
LG	64	
67773	5	
69823	10	
71841	49	
LG001	2	
62450	2	

D3490-3 Cross Bolt Spacer		Manufactured	No			160	Each	54.0000	4	4		BE 11/10/13	
------------------------------	--	--------------	----	--	--	-----	------	---------	---	---	--	-------------	--

Location	Loc Qty	Loc Code
LG	54	
73295	54	

AN3C34A BOLT		Purchased	No			230	Each	66.0000	1	1			
-----------------	--	-----------	----	--	--	-----	------	---------	---	---	--	--	--

Location	Loc Qty	Loc Code
ST352	20	
117514	20	
ST353	46	
116075 ✓	42	
118838	4	

PART DOES NOT ~~BE~~  
BELONG TO THIS MODEL  
OF SKIDTUBE.

BL 11-10-25.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

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Start Date: 10/06/11

Required Date: 10/19/11

Start Qty: 1.00

Required Qty: 1.00

AN3C36A Purchased No

230 Each 56.0000 4 4

BOLT

Location	Loc Qty	Loc Code
FG 118757.	14	
101261	4	
116590	10	
ST353 <del>118757</del>	42	
119083	12	
119125	30	

4.

BP 11-10-26.

AN3C37A Purchased No

230 Each 114.0000 1 1

BOLT

Location	Loc Qty	Loc Code
ST353	64	
116874	11	
117010	2	
118518	51	
ST354	50	
118709	50	

SP

AN3C42A Purchased No

230 Each 45.0000 1 1

BOLT

Location	Loc Qty	Loc Code
ST354	45	
106176	2	
117763	20	
118131	20	
118451	3	

SP

D3488-042 Manufactured No

230 Each 21.0000 1 1

Blade Fitting Assembly, RH

Location	Loc Qty	Loc Code
FP008	21	
62003	1	
69904	9	
71883	11	

BP 11-10-26.

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Start Date: 10/06/11

Required Date: 10/19/11

Start Qty: 1.00

Required Qty: 1.00

D3490-5 Manufactured No 230 Each 48.0000 4 4  
Cross Bolt Spacer

Location	Loc Qty	Loc Code
LG001	48	
46490	6	
59230	42	

BE 11/10/13

D3492-1 Manufactured No 230 Each 126.0000 8 8  
Plug

Location	Loc Qty	Loc Code
FP	126	
69531	8	
73402 ✓	118	

BR 11-10-26

D3492-5 Manufactured No 230 Each 48.0000 8 8  
Plug

Location	Loc Qty	Loc Code
FP	48	
69533	8	
70698 ✓	40	

BR 11-10-26

D3873-1 Manufactured No 230 Each 417.0000 7 7  
Bushing

Location	Loc Qty	Loc Code
ST084 73831	4	
68247	4	
ST088	413	
64760	1	
71837	27	
73829	385	

BR 11-10-26

D4154-041 Manufactured No 230 Each 4.0000 1 1  
Wearplate Assembly

Location	Loc Qty	Loc Code
FP	4	
71442 ✓	4	

BR 11-10-26

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Start Date: 10/06/11

Required Date: 10/19/11

Start Qty: 1.00

Required Qty: 1.00

D4170-1  
Bushing

Manufactured No

230 Each 48.0000 4 4

Location

Loc Qty

Loc Code

LG

44

61581

5

68225

1

71844

38

LG002

4

65912

4

BE 11/10/13

D4171-1  
Bushing

Manufactured No

230 Each 10.0000 1 1

Location

Loc Qty

Loc Code

ST135

10

69037 ✓

10

MS21043-3  
Nut

Purchased No

230 Each 933.0000 5 5

Location

Loc Qty

Loc Code

FG

72

103691

72

ST301

861

118077

1

118614 ✓

492

118686

368

BR 11-10-26

BR 11-10-26

NAS1149C0363R  
Washer

Purchased No

230 Each 3,939.0000 9 9

Location

Loc Qty

Loc Code

ST297

3939

114742 ✓

3939

BR 11-10-26

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Start Qty: 1.00

Required Qty: 1.00

NAS1515H3L  
WASHER

Purchased

No

230

Each

141.0000

4

4

Location

Loc Qty

Loc Code

FG

40

102472

40

ST277

101

113362 ✓

57

118686 ✓

44

3  
2

BR 11-10-26

NAS1611-005  
O-RING

Purchased

No

230

Each

160.0000

8

8

Location

Loc Qty

Loc Code

FP002

160

106099 ✓

55

114220

105

8

BR 11-10-26

NAS1611-010  
O-RING

Purchased

No

230

Each

143.0000

8

8

Location

Loc Qty

Loc Code

FP

129

117460

8

118077

1

118612 ✓

120

FP-A

14

110915

14

8

BR 11-10-26

NAS1149D0863J  
WASHER

Purchased

No

250

Each

142.0000

2

2

Location

Loc Qty

Loc Code

ST298

142

118078 ✓

142

2

BR 11-10-26

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Start Qty: 1.00

Required Qty: 1.00

D2744  
Cap

Manufactured No

110 Each 69.0000 1 1

BE 11/10/12

Location	Loc Qty	Loc Code
LG002	14	
62715	1	
70881	13	
WA	55	
71861	55	

D2600-3-BENT  
Extrusion Bent

Manufactured No

110 Each 17.0000 1 1

BE 11/10/12

Location	Loc Qty	Loc Code
LG	17	
66875	8	
73253	9	

D2743  
Crossbolt Spacer

Manufactured No

160 Each 230.0000 8 8

BE 11/10/13

Location	Loc Qty	Loc Code
LG	172	
69818	5	
71839	103	
73403	64	
LG001	58	
67766	4	
68251	54	

D2739  
350 I Beam

Manufactured No

160 Each 8.0000 1 1

Location	Loc Qty	Loc Code
LG	8	
72154	4	
72155	4	

BE 11-10-12

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Parent Item Name: Skidtube w/ Training Wearplates, RH

Start Date: 10/06/11

Required Date: 10/19/11

Start Qty: 1.00

Required Qty: 1.00

ALS4-1032-225

Purchased

No

230

Each

1,852.0000

4

4

Insert

Location

Loc Qty

Loc Code

ST282

1852

110768

62

118386

860

118966

930

H.

PR 11-10-26.

AN8C35A

Purchased

No

230

Each

119.0000

1

1

BOLT

Location

Loc Qty

Loc Code

FP

83

117511 ✓

17

118286

66

FP-A

1

115960

1

ST345

34

117834

34

ST346

1

114442

0

115188

0

115960

1

1

PR 11-10-26.

AN6C44A

Purchased

No

230

Each

137.0000

4

4

BOLT

Location

Loc Qty

Loc Code

FG

2

103964

2

ST344

135

118332

15

118387 ✓

50

118985

40

119125

30

4.

PR 11-10-26.

October-07-11 9:42:52 AM

Shop Packet Print

Page 7

# Picklist Print

October-07-11 9:42:52 AM

Page 8

Work Order ID: 74824

Parent Item: D350-636-018

Start Date: 10/06/11

Required Date: 10/19/11

Parent Item Name: Skidtube w/ Training Wearplates, RH

Start Qty: 1.00

Required Qty: 1.00

MS21083C8

Purchased

No

230

Each

85.0000

1

1

NUT

## Location

## Loc Qty

## Loc Code

FP-B

1

115884

1

ST293

12

118077 ✓

12

ST303

72

115884

0

118354

22

118614

50

BR 11-10-26.

D3631-1

Manufactured

No

230

Each

155.0000

8

8

Washer

## Location

## Loc Qty

## Loc Code

ST072

155

68062 ✓

155

118354

230

Each

0.0000

4

4

BR 11-10-26.

\*AN960C10L  
washer

NAS1149C0332R ✓

Purchased

No

D2745

Manufactured

No

230

Each

213.0000

8

8

Bushing

## Location

## Loc Qty

## Loc Code

FP-A

51

69529

51

ST023

162

71835 ✓

162

NAS1149C0832R

Purchased

No

230

Each

351.0000

1

1

WASHER

## Location

## Loc Qty

## Loc Code

FP-B

23

114915 ✓

23

ST297

328

114915

328

BR 11-10-26.

October-07-11 9:42:52 AM

Shop Packet Print

Page 8

# Picklist Print

October-07-11 9:42:52 AM

Page 9

Work Order ID: 74824

Parent Item: D350-636-018

Parent Item Name: Skidtube w/ Training Wearplates, RH

Start Date: 10/06/11

Required Date: 10/19/11

Start Qty: 1.00

Required Qty: 1.00

AN3C6A Purchased No

230 Each 256.0000 4 4

BR 11-10-20.

Location	Loc Qty	Loc Code
FP-A	1	
111982	1	
ST351	255	
111982	2	
116419	23	
116549	2	
116704	12	
117619	10	
117688	1	
117872	5	
118422 ✓	200	

MS21043-6 Purchased No

230 Each 529.0000 4 4

BR 11-10-20.

Location	Loc Qty	Loc Code
FG	20	
103693	20	
ST301	509	
112314 ✓	299	
117887	10	
118384	200	

D3493-1 Washer Manufactured No

250 Each 65.0000 2 2

SP 11/10/27

Location	Loc Qty	Loc Code
ST062	65	
70697	27	
71846	38	

October-07-11 9:42:52 AM

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Page 9

# Picklist Print

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Page 10

Work Order ID: 74824

Parent Item: D350-636-018

Start Date: 10/06/11

Required Date: 10/19/11

Parent Item Name: Skidtube w/ Training Wearplates, RH

Start Qty: 1.00

Required Qty: 1.00

MS21083C8

Purchased

No

250

Each

85.0000

2

2

NUT

## Location

## Loc Qty

## Loc Code

FP-B

1

115884

1

ST293

12

118077 ✓

12

ST303

72

115884

0

118354

22

118614

50

BR 11-10-26

AN8C21A

Purchased

No

250

Each

81.0000

2

2

BOLT

## Location

## Loc Qty

## Loc Code

ST345

81

118045 ✓

31

118758

50

BR 11-10-26

D2741

Manufactured

No

250

Each

25.0000

1

1

Blade, 350 Skidtube

## Location

## Loc Qty

## Loc Code

ST466

25

70667 ✓

25

BR 11-10-26

October-07-11 9:42:52 AM

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Page 10

QTY -041	QTY -042	QTY -043	QTY -044	PART NUMBER	DESCRIPTION
X				D4168-041	350 SKIDTUBE ASSEMBLY, LH
	X			D4168-042	350 SKIDTUBE ASSEMBLY, RH
		X		D4168-043	350 SKIDTUBE ASSEMBLY, LH
			X	D4168-044	350 SKIDTUBE ASSEMBLY, RH
1	1	1	1	D2739	WEB
8	8	8	8	D2743	SPACER
1	1	1	1	D2744	CAP
8	8	8	8	D2745	BUSHING
1		1		D3488-041	BLADE FITTING, LH
1		1		D3488-042	BLADE FITTING, RH
4	4	4	4	D3490-1	SPACER
4	4			D3490-3	SPACER
		4	4	D3490-5	SPACER
8	8	8	8	D3492-041	PLUG ASSEMBLY
8	8			D3492-043	PLUG ASSEMBLY
		8	8	D3492-045	PLUG ASSEMBLY
8	8	8	8	D3631-1	WASHER
7	7	7	7	D3873-1	BUSHING
1	1	1	1	D4154-041	WEARPLATE ASSEMBLY
1				D4168-1	SKIDTUBE WELDMENT, LH
	1			D4168-2	SKIDTUBE WELDMENT, RH
		1		D4168-3	SKIDTUBE WELDMENT, LH
			1	D4168-4	SKIDTUBE WELDMENT, RH
4	4	4	4	D4170-1	SPACER
1	1	1	1	D4171-1	BUSHING
4	4	4	4	ALS4-1032-225	INSERT
4	4	4	4	AN3C6A	BOLT
1	1	1	1	AN3C34A	BOLT
4	4	4	4	AN3C36A	BOLT
4	4	4	4	AN6C44A	BOLT
1	1	1	1	AN8C35A	BOLT
9	9	9	9	AN960C10	WASHER (OR NAS1149C0363R)
4	4	4	4	AN960C10L	WASHER (OR NAS1149C0332R)
1	1	1	1	AN960C816L	WASHER (OR NAS1149C0832R)
5	5	5	5	MS21043-3	NUT
4	4	4	4	MS21043-6	NUT
1	1	1	1	MS21083C8	NUT
4	4	4	4	NAS1515H3L	WASHER

# **GENERAL NOTES:**

- MATERIAL: MAKE D4168-1/-2/-3/-4 FROM D2600-3 EXTRUSION (INITIAL LENGTH = 120.0).
- FINISH:  
CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 PRIOR TO INSTALLING D2739 WEB.  
POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3  
BLACK ANTI-SKID PAINT AS INDICATED TO 1.0 ABOVE SKIDTUBE CENTER-LINE PER DART 005 4.4 (OPTIONAL).
- TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- UNITS: INCHES UNLESS OTHERWISE NOTED
- BREAK SHARP EDGES: N/A
- IDENTIFICATION: N/A
- WEIGHT: D4168-041/-042/-043/-044 = 32.3 LBS
- WELD PER DART QSI 004
- FINAL CONFIGURATION SHOULD HAVE THE FOLLOWING MINIMUM MECHANICAL PROPERTIES:  
MINIMUM YIELD TENSILE STRENGTH = 35 KSI  
MINIMUM ULTIMATE TENSILE STRENGTH = 38 KSI
- COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF  
POWDER COATING WITH MEK DEGREASER
- SPACER AND PLUG INSTALLED SAME AS SECTION AJ-AJ EXCEPT HORIZONTAL
- SPACER AND PLUG INSTALLED SAME AS SECTION AP-AP EXCEPT HORIZONTAL

074824

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2010-09-15

A NEW ISSUE		SC	10.08.09
REV.	DESCRIPTION	BY	DATE
DESIGN	SC	<b>DART AEROSPACE USA, INC.</b>	
DRAWN	SC	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.		D4168	SHEET 1 OF 11
APPROVED		TITLE	SCALE
DE APPR.		350 SKIDTUBE ASSEMBLY	NTS
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8 7 6 5 4 3 2 1

D

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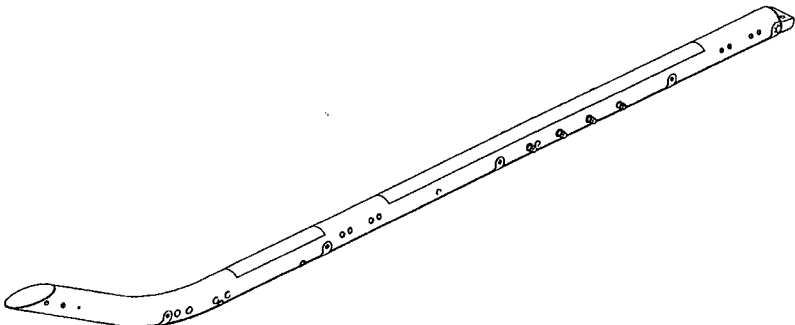
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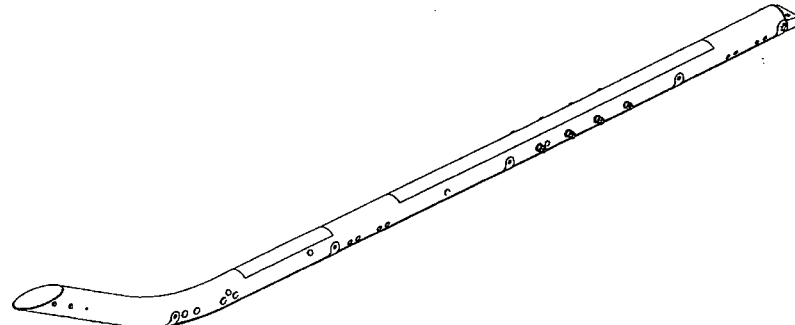
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A

A



D4168-041 350 SKIDTUBE ASSEMBLY, LH



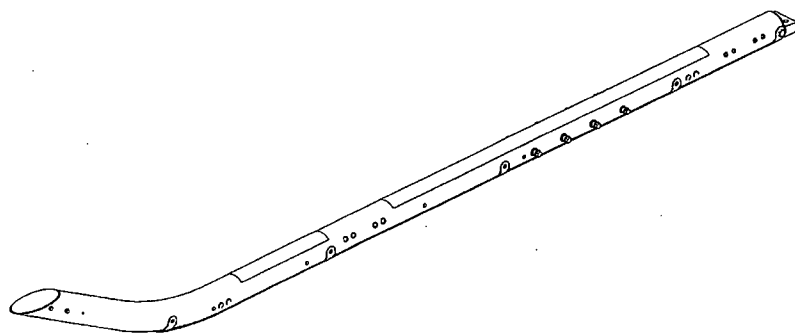
D4168-042 350 SKIDTUBE ASSEMBLY, RH

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2010-09-15  
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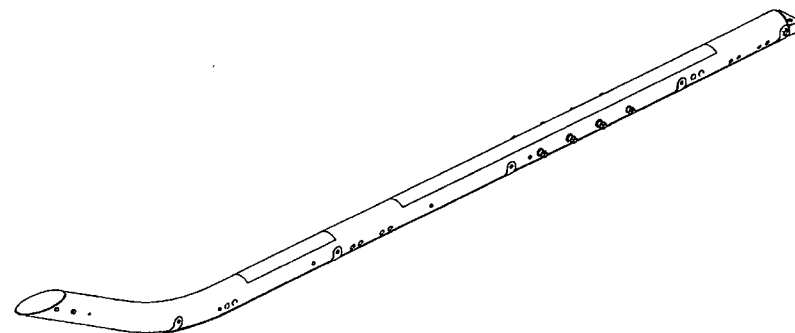
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CHECKED		DRAWING NO.	REV. A
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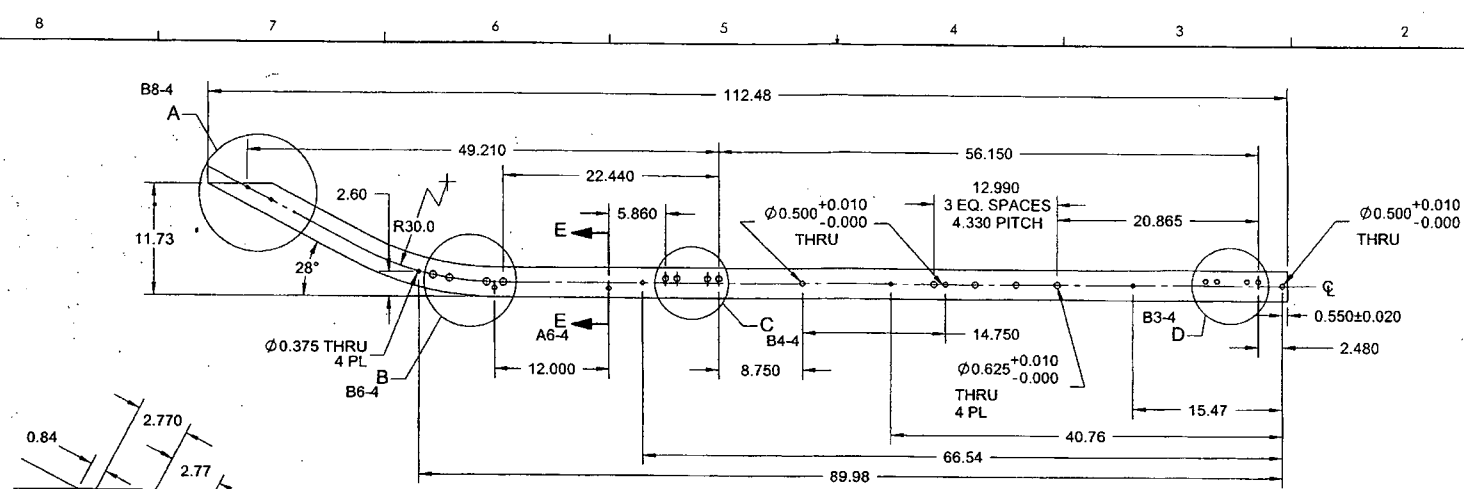
**D4168-043 350 SKIDTUBE ASSEMBLY, LH**



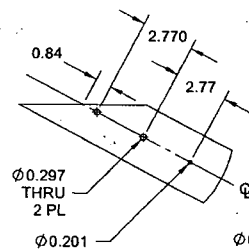
**D4168-044 350 SKIDTUBE ASSEMBLY, RH**

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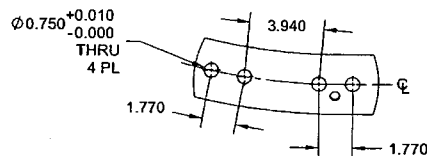
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MFG. APPR.	<i>[Signature]</i>	D4168	SHEET 3 OF 11
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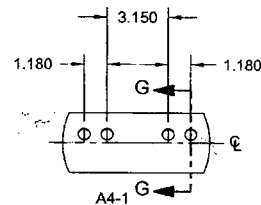
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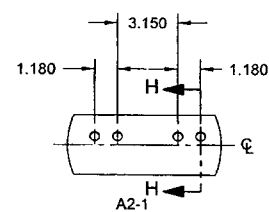
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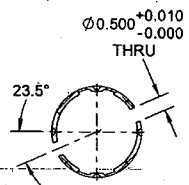
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SCALE 2X



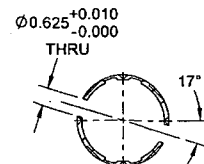
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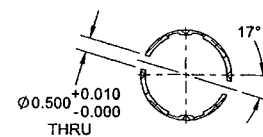
**DETAIL D**  
SCALE 2X



**SECTION E-E**  
SCALE 3X, 2 PL



**SECTION G-G**  
SCALE 3X, 4 PL



**SECTION H-H**  
SCALE 3X, 4 PL

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8

7

6

5

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1

D

D

C

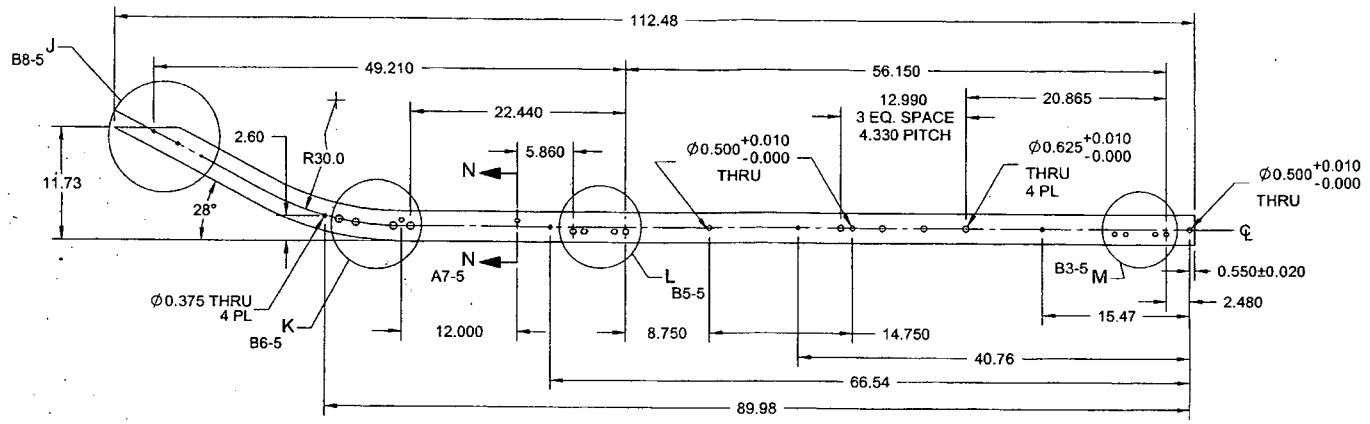
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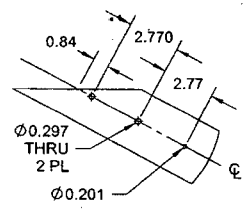
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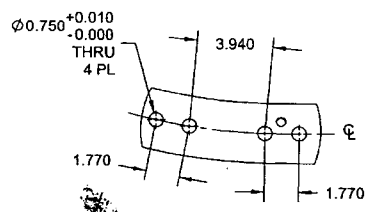


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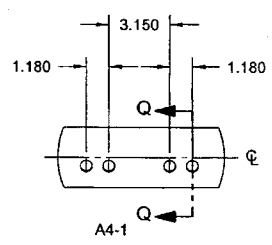
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D8-5



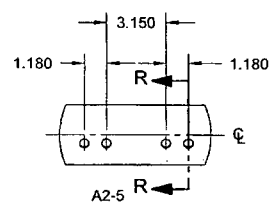
**DETAIL K**  
SCALE 2X

C7-5



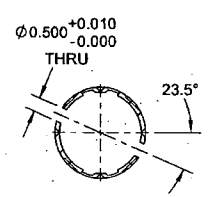
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SCALE 2X

D5-5



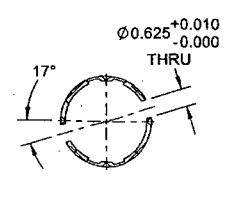
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SCALE 2X

C3-5



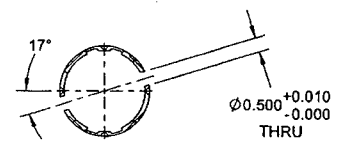
**SECTION N-N**  
SCALE 3X, 2 PL

C6-5



**SECTION Q-Q**  
SCALE 3X, 4 PL

B5-5



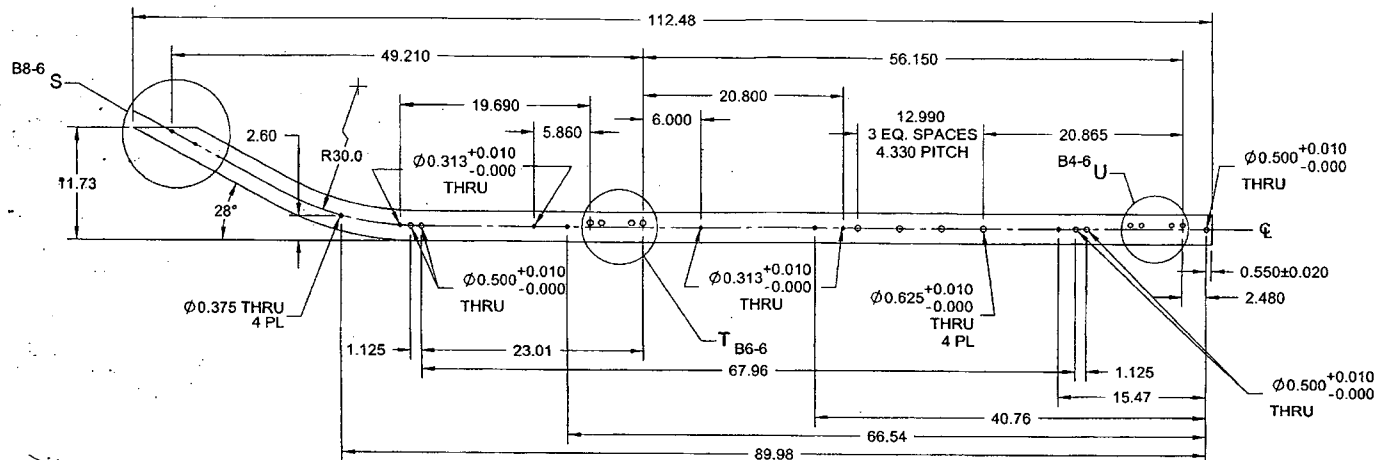
**SECTION R-R**  
SCALE 3X, 4 PL

B3-5

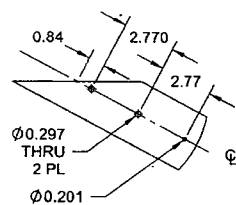
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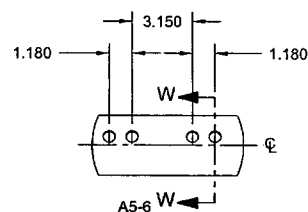
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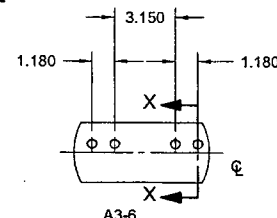
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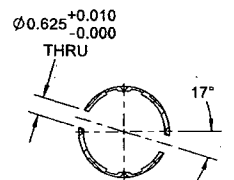
**DETAIL S**  
SCALE 2X  
D8-6



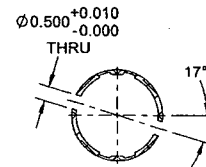
**DETAIL T**  
SCALE 2X  
C5-6



**DETAIL U**  
SCALE 2X  
D3-6



**SECTION W-W**  
SCALE 3X, 4 PL  
B6-6



**SECTION X-X**  
SCALE 3X, 4 PL  
B4-6

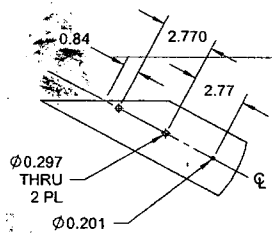
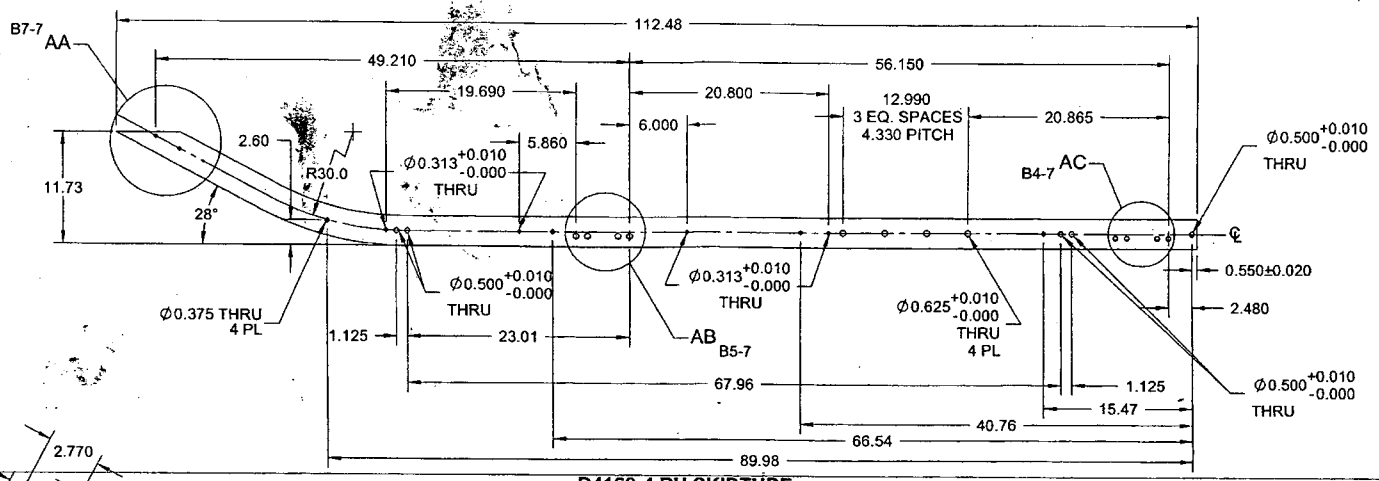
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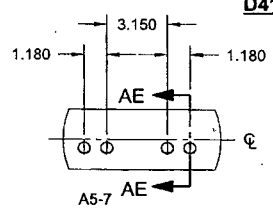
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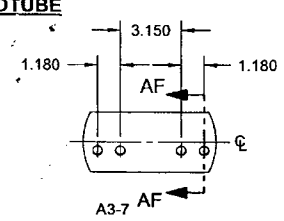
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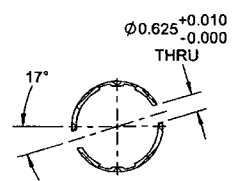
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SCALE 2X



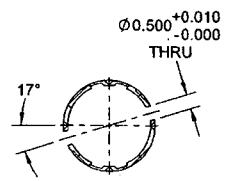
**DETAIL AB**  
SCALE 2X



**DETAIL AC**  
SCALE 2X



**SECTION AE-AE**  
SCALE 3X, 4 PL



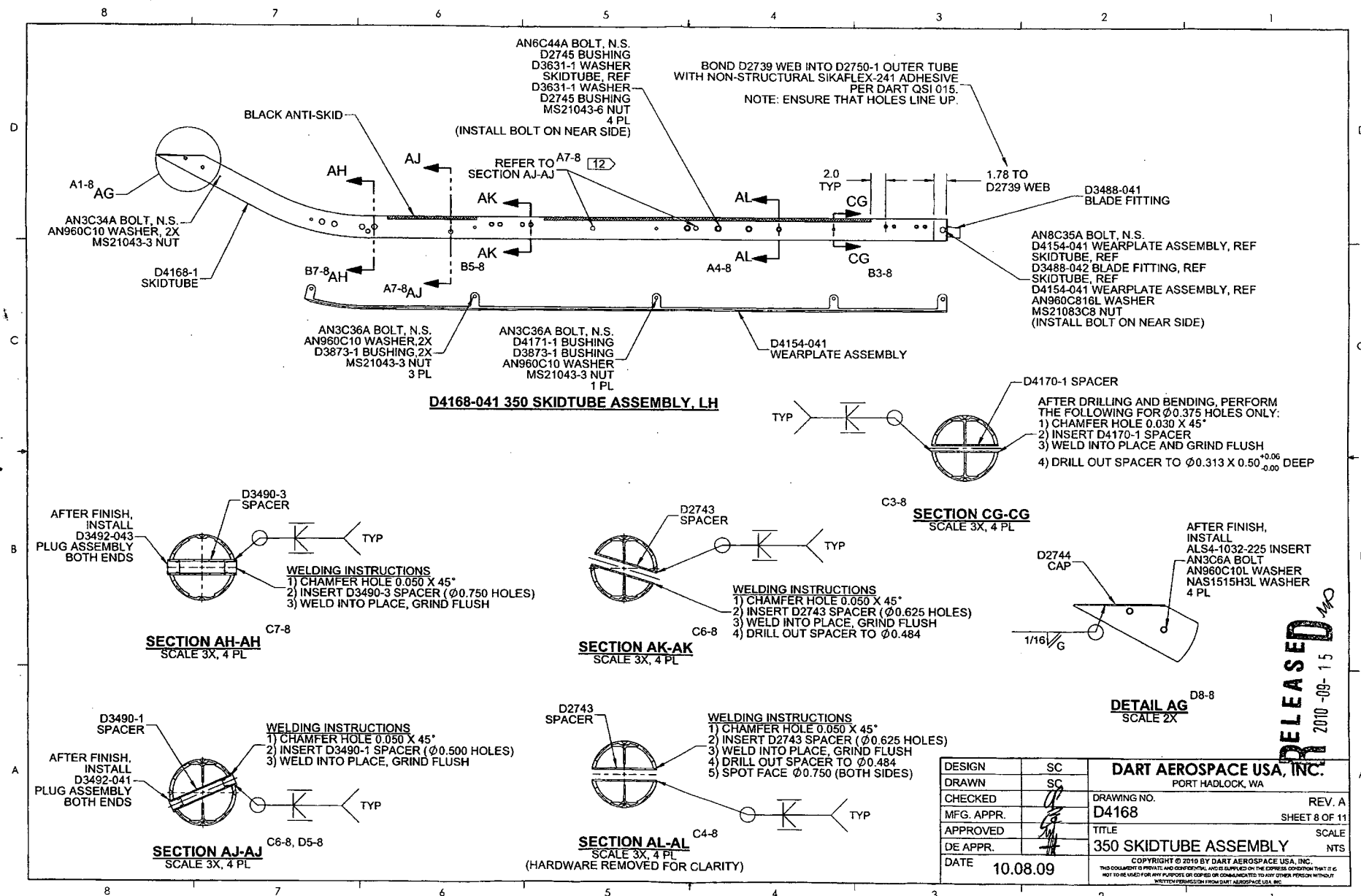
**SECTION AF-AF**  
SCALE 3X, 4 PL

**D4168-4 RH SKIDTUBE**

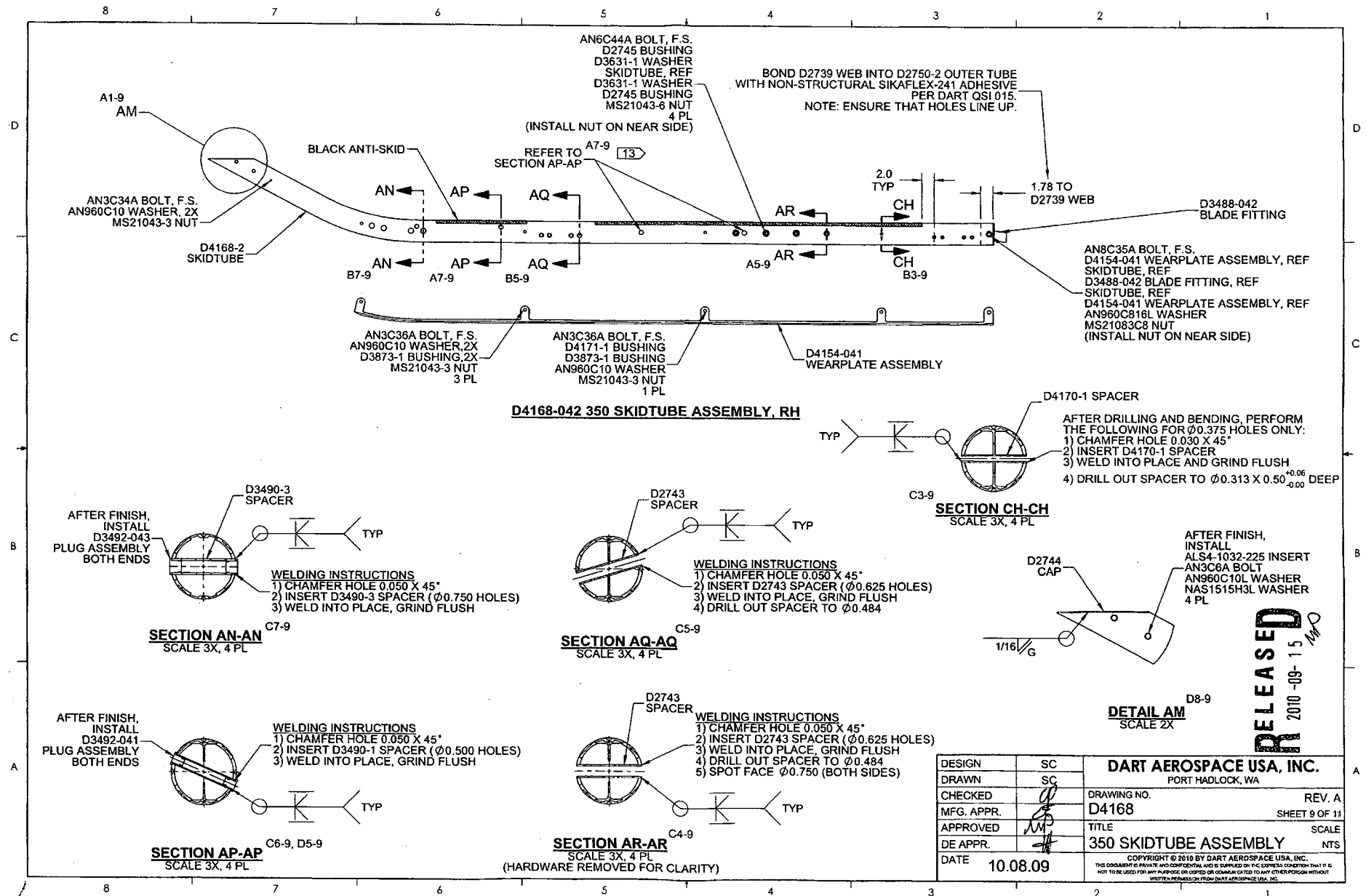
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8 7 6 5 4 3 2 1

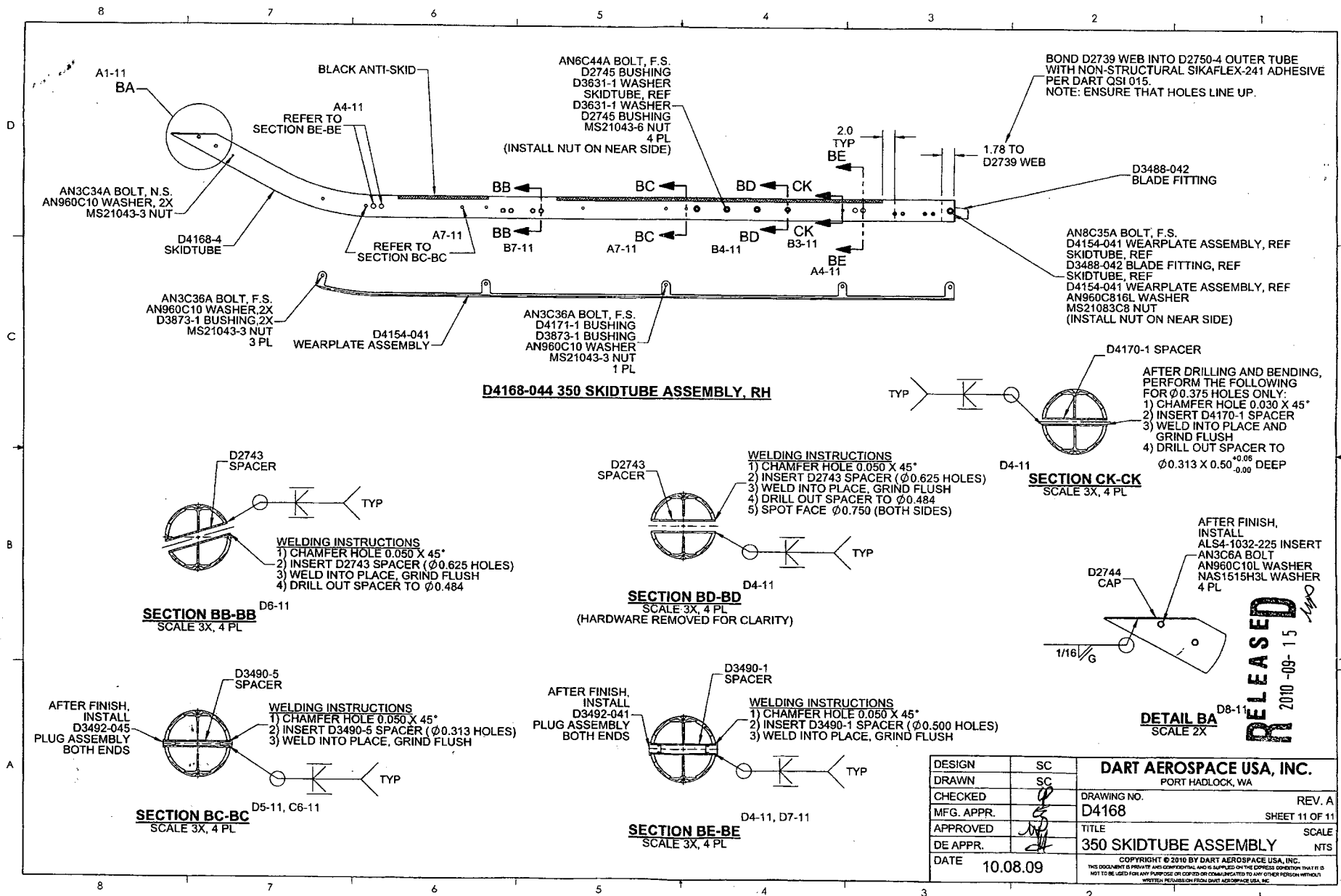


RELEASED  
2010-09-15









NO. 270

AWS D17.1.2001  
QUALIFICATION TEST RECORD

Name: Barclay Elliott  
Job number: B 72821  
Part number: D 350 636 D12  
Description: 350 skid tube  
Welding Process: Tig[☒] Mig[ ]  
Base materiel: Alum  
Current: AC[☒] DC[ ]

TEST REQUIREMENTS AND RESULTS

Visual: pass[☒] fail[ ]  
Penetration: pass[☒] fail[ ]

UNACCEPTABLE

Cracks: pass[☒] fail[ ]  
Undercut: pass[☒] fail[ ]  
Pin holes: pass[☒] fail[ ]  
Overlap (cold lap): pass[☒] fail[ ]  
Porosity (surface): pass[☒] fail[ ]  
Coloration: pass[☒] fail[ ]

Qualifier Pat Dunn Date of Test Coupon 11-10-07

Welder Barclay Elliott Date of Test Coupon 11-10-07

The above named individual is qualified in accordance with AWS D17.1.2001 to weld